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<150> PCT/US00/28664
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<150> 60/163,085
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<213> Homo sapiens

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<213> Homo sapiens

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<211> 1097
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<213> Homo sapiens

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<211> 665

<212> DNA
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<212> DNA
<213> Homo sapiens

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<213> Homo sapiens

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<212> DNA
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<211> 947
<212> DNA
<213> Homo sapiens

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atttgatccc cagtgttgaa ggtggggcct ggtgggagat gttcctgtta tcgggatgga 660
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<210> 29
<211> 932
<212> DNA
<213> Homo sapiens

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tttggatcac ctggattttc aggacttcca gcttccttgg caacaggtcc tgtcagagct 360
cccagtggcc ccagcctttg gaggtggcag ttctgtggct ggttttggta gtccggggct 420
cacattctca cactggcttt ttctaagcca tccagtggac acttttggaa atagccaggc 480
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ctctgggaaa aattccatta aagcctccac ctctggaact tctaaatgtt taaaagggca 660
attttaaata caaaaaagaa tgatgtttaa aattgctttg agtgattcat acagagatgt 720
atatatgcat acatgtatat attcataagg aatataagct tccatcaata gtgattttaa 780
atttgatttt tttcttaact ctaaatattt aagtaaaaag taacaaaaac tctgcaagca 840
agggaatttt tttgtactgt aattttgaat ggaactgaaa aattatgcac gaataaagta 900
cttttctcat gccaaaaaaa aaaaaaaaaa aa 932

<210> 30
<211> 1670
<212> DNA
<213> Homo sapiens

<400> 30
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aatggacggg ttctgggaga ccagatggtc tcagacactg agctccagga aatgtccacc 180
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aagacactaa tagaacaaac aaacgaggag cgcaaatccc tgctcaccaa cttggaagaa 300
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gcaggacagt ttcgaccggg catccagcat catggatgag ctgttccagg acagattctt 660
cacccgtgag gcccaggacc ctttccactt ctcacccttc agctcattcc agcggaggcc 720
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cctccctctg gactctgcat tgtaacaccg tgttcactga tcatgggaag aactcctgtg 1620
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<210> 31
<211> 2072
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (2065)
<223> n equals a,t,g, or c

<400> 31
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cggcctggac catggacgcc agatggtggg cagtggtggt gctggctgcg ttcccctccc 180
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tccgatttgt ggtgaatgct gctggctatg ccagctttat ggtacctggc tacctcctgg 300
tgcagtactt caggcggaag aactacctgg agaccggtag gggcctctgc tttcccctgg 360

tgaaagcttg tgtgtttggc aatgagccca aggcctctga tgaggttccc ctggcgcccc 420
gaacagaggc ggcagagacc accccgatgt ggcaggccct gaagctgctc ttctgtgcca 480
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gctatggggc cacagccaca tcaccgggtg agcgctttac ggactcgcag ttcctggtgc 600
taatgaaccg agtgctggca ctgattgtgg ctggcctctc ctgtgttctc tgcaagcagc 660
cccggcatgg ggcacccatg taccggtact cctttgccag cctgtccaat gtgcttagca 720
gctggtgcca atacgaagct cttaagttcg tcagcttccc cacccaggtg ctggccaagg 780
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<210> 32
<211> 985
<212> DNA
<213> Homo sapiens

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gcggaaaagg acaaggatcc aaactggcga atttgctgat cttcgcgtcc ctctccgctt 180
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aactggaaca gtttactacc atgaatctat cctatgtctt cattccttta tgggccttgc 600
tggctggggc tttaacagaa ctcggatata atgtcttttt tgtgagagac tgacttctaa 660
gtacatcatc tcctttctat tgctgttcaa caagttacca ttaaagtgtt ctgaatctgt 720
caagcttcaa gaataccaga gaactgaggg aaaatactaa atgtagtttt atactacttc 780
cataaaacar gattggtgaa tcacggactt ctagtcaacc tacagcttaa ttattcagca 840
tttgagttat tgagatcctt attatctcta tgtaaataaa gtttgttttg gacctcaaaa 900
aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa 960
accgggggggg gggccccccc cccaa 985

<210> 33
<211> 1380
<212> DNA
<213> Homo sapiens

<400> 33
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gaggacggca gcaaccgcag cagcagcctt caggtaataa tagacgtgga tggaatacaa 180
ctagccagag atattccaat gtcatccagc catccagttt ctccaaatcc acaccatggg 240
ggggcagcag agatcaagaa acctaatatt tcaggtttta cagacatttc accagaggaa 300
ttgaggcttg aataccataa cttcttaacc agcaataact tacagagtta tctaaattct 360

gtccaacgtt taataaatca atggaggaac agggtaaatg aactgaaaag tctaaatata 420
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<210> 34
<211> 363
<212> PRT
<213> Homo sapiens

<400> 34
Met Lys Thr Leu Leu Leu Leu Val Gly Leu Leu Leu Thr Trp Glu Asn
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Gly Arg Val Leu Gly Asp Gln Met Val Ser Asp Thr Glu Leu Gln Glu
20 25 30

Met Ser Thr Glu Gly Ser Lys Tyr Ile Asn Arg Glu Ile Lys Asn Ala
35 40 45

Leu Lys Gly Val Lys Gln Ile Lys Thr Leu Ile Glu Gln Thr Asn Glu
50 55 60

Glu Arg Lys Ser Leu Leu Thr Asn Leu Glu Glu Ala Lys Lys Lys Lys
65 70 75 80

Glu Asp Ala Leu Asn Asp Thr Lys Asp Ser Glu Met Lys Leu Lys Ala
85 90 95

Ser Gln Gly Val Cys Asn Asp Thr Met Met Ala Leu Trp Glu Glu Cys
100 105 110

Lys Pro Cys Leu Lys Gln Thr Cys Met Lys Phe Tyr Ala Arg Val Cys
115 120 125

Arg Ser Ser Thr Gly Leu Val Gly His Gln Val Glu Glu Phe Leu Asn
130 135 140

Gln Ser Ser Pro Phe Tyr Phe Trp Ile Asn Gly Asp Arg Ile Asp Ser
145 150 155 160

Leu Leu Glu Asn Asp Arg Gln Gln Thr His Ala Leu Asp Val Met Gln
165 170 175

Asp Ser Phe Asp Arg Ala Ser Ser Ile Met Asp Glu Leu Phe Gln Asp
180 185 190

Arg Phe Phe Thr Arg Glu Ala Gln Asp Pro Phe His Phe Ser Pro Phe
195 200 205

Ser Ser Phe Gln Arg Arg Pro Phe Phe Phe Asn Ile Lys His Arg Phe
210 215 220

Ala Arg Asn Ile Met Pro Phe Pro Gly Tyr Gln Pro Leu Asn Phe His

225 230 235 240

Asp Met Phe Gln Pro Phe Phe Asp Met Ile His Gln Ala Gln Gln Ala
245 250 255

Met Asp Val Asn Leu His Arg Leu Pro His Phe Pro Met Glu Phe Thr
260 265 270

Glu Glu Asp Asn Gln Asp Gly Ala Val Cys Lys Glu Ile Arg His Asn
275 280 285

Ser Thr Gly Cys Leu Lys Met Lys Asp Gln Cys Glu Lys Cys Arg Glu
290 295 300

Ile Leu Ser Val Asp Cys Ser Ser Asn Asn Pro Ala Gln Val Gln Leu
305 310 315 320

Arg Gln Glu Leu Asn Asn Ser Leu Gln Ile Ala Glu Lys Phe Thr Lys
325 330 335

Leu Val Arg Arg Ala Ala Ala Val Leu Pro Gly Glu Asp Val Gln His
340 345 350

Val Leu Pro Ala Glu Ala Ala Gly Arg Ala Val
355 360

<210> 35
<211> 766
<212> PRT
<213> Homo sapiens

<400> 35
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1 5 10 15

Leu Trp Glu Trp Ile Ala Leu Ser Leu His Cys Trp Val Leu Ala Val
20 25 30

Ala Ala Val Ser Asp Gln His Ala Thr Ser Pro Phe Asp Trp Leu Leu
35 40 45

Ser Asp Lys Gly Pro Phe His Arg Ser Gln Glu Tyr Thr Asp Phe Val
50 55 60

Asp Arg Ser Arg Gln Gly Phe Ser Thr Arg Tyr Lys Ile Tyr Arg Glu
65 70 75 80

Phe Gly Arg Trp Lys Val Asn Asn Leu Ala Val Glu Arg Arg Asn Phe
85 90 95

Leu Gly Ser Pro Leu Pro Leu Ala Pro Glu Phe Phe Arg Asn Ile Arg
100 105 110

Leu Leu Gly Arg Arg Pro Thr Leu Gln Gln Ile Thr Glu Asn Leu Ile
115 120 125

Lys Lys Tyr Gly Thr His Phe Leu Leu Ser Ala Thr Leu Gly Gly Glu
130 135 140

Glu Ser Leu Thr Ile Phe Val Asp Lys Arg Lys Leu Ser Lys Arg Ala
145 150 155 160

Glu Gly Ser Asp Ser Thr Thr Asn Ser Ser Ser Val Thr Leu Glu Thr
165 170 175

Leu His Gln Leu Ala Ala Ser Tyr Phe Ile Asp Arg Asp Ser Thr Leu
180 185 190

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Arg Arg Leu His His Ile Gln Ile Ala Ser Thr Ala Ile Lys Val Thr
        195                 200                 205

Glu Thr Arg Thr Gly Pro Leu Gly Cys Ser Asn Tyr Asp Asn Leu Asp
    210                 215                 220

Ser Val Ser Ser Val Leu Val Gln Ser Pro Glu Asn Lys Ile Gln Leu
225                 230                 235                 240

Gln Gly Leu Gln Val Leu Leu Pro Asp Tyr Leu Gln Glu Arg Phe Val
                245                 250                 255

Gln Ala Ala Leu Ser Tyr Ile Ala Cys Asn Ser Glu Gly Glu Phe Ile
            260                 265                 270

Cys Lys Glu Asn Asp Cys Trp Cys His Cys Gly Pro Lys Phe Pro Glu
        275                 280                 285

Cys Asn Cys Pro Ser Met Asp Ile Gln Ala Met Glu Glu Asn Leu Leu
    290                 295                 300

Arg Ile Thr Glu Thr Trp Lys Ala Tyr Asn Ser Asp Phe Glu Glu Ser
305                 310                 315                 320

Asp Glu Phe Lys Leu Phe Met Lys Arg Leu Pro Met Asn Tyr Phe Leu
                325                 330                 335

Asn Thr Ser Thr Ile Met His Leu Trp Thr Met Asp Ser Asn Phe Gln
            340                 345                 350

Arg Arg Tyr Glu Gln Leu Glu Asn Ser Met Lys Gln Leu Phe Leu Lys
        355                 360                 365

Ala Gln Lys Ile Val His Lys Leu Phe Ser Leu Ser Lys Arg Cys His
    370                 375                 380

Lys Gln Pro Leu Ile Ser Leu Pro Arg Gln Arg Thr Ser Thr Tyr Trp
385                 390                 395                 400

Leu Thr Arg Ile Gln Ser Phe Leu Tyr Cys Asn Glu Asn Gly Leu Leu
                405                 410                 415

Gly Ser Phe Ser Glu Glu Thr His Ser Cys Thr Cys Pro Asn Asp Gln
            420                 425                 430

Val Val Cys Thr Ala Phe Leu Pro Cys Thr Val Gly Asp Ala Ser Ala
        435                 440                 445

Cys Leu Thr Cys Ala Pro Asp Asn Arg Thr Arg Cys Gly Thr Cys Asn
    450                 455                 460

Thr Gly Tyr Met Leu Ser Gln Gly Leu Cys Lys Pro Glu Val Ala Glu
465                 470                 475                 480

Ser Thr Asp His Tyr Ile Gly Phe Glu Thr Asp Leu Gln Asp Leu Glu
                485                 490                 495

Met Lys Tyr Leu Leu Gln Lys Thr Asp Arg Arg Ile Glu Val His Ala
            500                 505                 510

Ile Phe Ile Ser Asn Asp Met Arg Leu Asn Ser Trp Phe Asp Pro Ser
        515                 520                 525

Trp Arg Lys Arg Met Leu Leu Thr Leu Lys Ser Asn Lys Tyr Lys Ser
    530                 535                 540

Ser Leu Val His Met Ile Leu Gly Leu Ser Leu Gln Ile Cys Leu Thr
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545 550 555 560

Lys Asn Ser Thr Leu Glu Pro Val Leu Ala Val Tyr Val Asn Pro Phe
565 570 575

Gly Gly Ser His Ser Glu Ser Trp Phe Met Pro Val Asn Glu Asn Ser
580 585 590

Phe Pro Asp Trp Glu Arg Thr Lys Leu Asp Leu Pro Leu Gln Cys Tyr
595 600 605

Asn Trp Thr Leu Thr Leu Gly Asn Lys Trp Lys Thr Phe Phe Glu Thr
610 615 620

Val His Ile Tyr Leu Arg Ser Arg Ile Lys Ser Asn Gly Pro Asn Gly
625 630 635 640

Asn Glu Ser Ile Tyr Tyr Glu Pro Leu Glu Phe Ile Asp Pro Ser Arg
645 650 655

Asn Leu Gly Tyr Met Lys Ile Asn Asn Ile Gln Val Phe Gly Tyr Ser
660 665 670

Met His Phe Asp Pro Glu Ala Ile Arg Asp Leu Ile Leu Gln Leu Asp
675 680 685

Tyr Pro Tyr Thr Gln Gly Ser Gln Asp Ser Ala Leu Leu Gln Leu Leu
690 695 700

Glu Ile Arg Asp Arg Val Asn Lys Leu Ser Pro Pro Gly Gln Arg Arg
705 710 715 720

Leu Asp Leu Phe Ser Cys Leu Leu Arg His Arg Leu Lys Leu Ser Thr
725 730 735

Ser Glu Val Val Arg Ile Gln Ser Ala Leu Gln Ala Phe Asn Ala Lys
740 745 750

Leu Pro Asn Thr Met Asp Tyr Asp Thr Thr Lys Leu Cys Ser
755 760 765

<210> 36
<211> 208
<212> PRT
<213> Homo sapiens

<400> 36
Met Gly Leu Gly Ala Arg Gly Ala Trp Ala Ala Leu Leu Leu Gly Thr
1 5 10 15

Leu Gln Val Leu Ala Leu Leu Gly Ala Ala His Glu Ser Ala Ala Met
20 25 30

Ala Ala Ser Ala Asn Ile Glu Asn Ser Gly Leu Pro His Asn Ser Ser
35 40 45

Ala Asn Ser Thr Glu Thr Leu Gln His Val Pro Ser Asp His Thr Asn
50 55 60

Glu Thr Ser Asn Ser Thr Val Lys Pro Pro Thr Ser Val Ala Ser Asp
65 70 75 80

Ser Ser Asn Thr Thr Val Thr Thr Met Lys Pro Thr Ala Ala Ser Asn
85 90 95

Thr Thr Thr Pro Gly Met Val Ser Thr Asn Met Thr Ser Thr Thr Leu
100 105 110

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Lys Ser Thr Pro Lys Thr Thr Ser Val Ser Gln Asn Thr Ser Gln Ile
        115                 120                 125

Ser Thr Ser Thr Met Thr Val Thr His Asn Ser Ser Val Thr Ser Ala
    130                 135                 140

Ala Ser Ser Val Thr Ile Thr Thr Thr Met His Ser Glu Ala Lys Lys
145                 150                 155                 160

Gly Ser Lys Phe Asp Thr Gly Ser Phe Val Gly Gly Ile Val Leu Thr
                165                 170                 175

Leu Gly Val Leu Ser Ile Leu Tyr Ile Gly Cys Lys Met Tyr Tyr Ser
            180                 185                 190

Arg Arg Gly Ile Arg Tyr Arg Thr Ile Asp Glu His Asp Ala Ile Ile
        195                 200                 205
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<210> 37
<211> 605
<212> PRT
<213> Homo sapiens

<400> 37

```
Met Gly Arg Leu Leu Arg Ala Ala Arg Leu Pro Pro Leu Leu Ser Pro
  1               5                  10                  15

Leu Leu Leu Leu Leu Val Gly Gly Ala Phe Leu Gly Ala Cys Val Ala
            20                  25                  30

Gly Ser Asp Glu Pro Gly Pro Glu Gly Leu Thr Ser Thr Ser Leu Leu
        35                  40                  45

Asp Leu Leu Leu Pro Thr Gly Leu Glu Pro Leu Asp Ser Glu Glu Pro
    50                  55                  60

Ser Glu Thr Met Gly Leu Gly Ala Gly Leu Gly Ala Pro Gly Ser Gly
65                  70                  75                  80

Phe Pro Ser Glu Glu Asn Glu Glu Ser Arg Ile Leu Gln Pro Pro Gln
                85                  90                  95

Tyr Phe Trp Glu Glu Glu Glu Glu Leu Asn Asp Ser Ser Leu Asp Leu
            100                 105                 110

Gly Pro Thr Ala Asp Tyr Val Phe Pro Asp Leu Thr Glu Lys Ala Gly
        115                 120                 125

Ser Ile Glu Asp Thr Ser Gln Ala Gln Glu Leu Pro Asn Leu Pro Ser
    130                 135                 140

Pro Leu Pro Lys Met Asn Leu Val Glu Pro Pro Trp His Met Pro Pro
145                 150                 155                 160

Arg Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu Glu Arg Glu Lys Glu
                165                 170                 175

Glu Val Glu Lys Gln Glu Glu Glu Glu Glu Glu Glu Leu Leu Pro Val
            180                 185                 190

Asn Gly Ser Gln Glu Glu Ala Lys Pro Gln Val Arg Asp Phe Ser Leu
        195                 200                 205
```

```
Thr Ser Ser Ser Gln Thr Pro Gly Ala Thr Lys Ser Arg His Glu Asp
    210                 215                 220

Ser Gly Asp Gln Ala Ser Ser Gly Val Glu Val Glu Ser Ser Met Gly
225                 230                 235                 240

Pro Ser Leu Leu Leu Pro Ser Val Thr Pro Thr Thr Val Thr Pro Gly
                245                 250                 255

Asp Gln Asp Ser Thr Ser Gln Glu Ala Glu Ala Thr Val Leu Pro Ala
            260                 265                 270

Ala Gly Leu Gly Val Glu Phe Glu Ala Pro Gln Glu Ala Ser Glu Glu
        275                 280                 285

Ala Thr Ala Gly Ala Ala Gly Leu Ser Gly Gln His Glu Glu Val Pro
    290                 295                 300

Ala Leu Pro Ser Phe Pro Gln Thr Thr Ala Pro Ser Gly Ala Glu His
305                 310                 315                 320

Pro Asp Glu Asp Pro Leu Gly Ser Arg Thr Ser Ala Ser Ser Pro Leu
                325                 330                 335

Ala Pro Gly Asp Met Glu Leu Thr Pro Ser Ser Ala Thr Leu Gly Gln
            340                 345                 350

Glu Asp Leu Asn Gln Gln Leu Leu Glu Gly Gln Ala Ala Glu Ala Gln
        355                 360                 365

Ser Arg Ile Pro Trp Asp Ser Thr Gln Val Ile Cys Lys Asp Trp Ser
    370                 375                 380

Asn Leu Ala Gly Lys Asn Tyr Ile Ile Leu Asn Met Thr Glu Asn Ile
385                 390                 395                 400

Asp Cys Glu Val Phe Arg Gln His Arg Gly Pro Gln Leu Leu Ala Leu
                405                 410                 415

Val Glu Glu Val Leu Pro Arg His Gly Ser Gly His His Gly Ala Trp
            420                 425                 430

His Ile Ser Leu Ser Lys Pro Ser Glu Lys Glu Gln His Leu Leu Met
        435                 440                 445

Thr Leu Val Gly Glu Gln Gly Val Val Pro Thr Gln Asp Val Leu Ser
    450                 455                 460

Met Leu Gly Asp Ile Arg Arg Ser Leu Glu Glu Ile Gly Ile Gln Asn
465                 470                 475                 480

Tyr Ser Thr Thr Ser Ser Cys Gln Ala Arg Ala Ser Gln Val Arg Ser
                485                 490                 495

Asp Tyr Gly Thr Leu Phe Val Val Leu Val Val Ile Gly Ala Ile Cys
            500                 505                 510

Ile Ile Ile Ile Ala Leu Gly Leu Leu Tyr Asn Cys Trp Gln Arg Arg
        515                 520                 525

Leu Pro Lys Leu Lys His Val Ser His Gly Glu Glu Leu Arg Phe Val
    530                 535                 540

Glu Asn Gly Cys His Asp Asn Pro Thr Leu Asp Val Ala Ser Asp Ser
545                 550                 555                 560

Gln Ser Glu Met Gln Glu Lys His Pro Ser Leu Asn Gly Gly Gly Ala
                565                 570                 575
```

```
Leu Asn Gly Pro Gly Ser Trp Gly Ala Leu Met Gly Gly Lys Arg Asp
            580                 585                 590

Pro Glu Asp Ser Asp Val Phe Glu Glu Asp Thr His Leu
        595                 600                 605


<210> 38
<211> 86
<212> PRT
<213> Homo sapiens

<400> 38
Met Tyr Lys Leu Glu Leu Ile Phe Pro Thr Ala Leu Val Leu Pro Ile
  1               5                  10                  15

Leu Val Asn Gly Thr Val Ile Cys Pro Leu Lys Ala Arg Asn Ser Val
             20                  25                  30

Ile Pro Ser Ser Ser Phe Leu Thr Ser Leu Gln Leu Thr Ile Trp Ile
         35                  40                  45

Gln Pro Cys Leu Phe Leu Pro Thr Thr Thr Gly Leu Ser Ser Gly Tyr
     50                  55                  60

His Thr Phe Leu Ser Gly Leu His Ser Cys His Ile Ser Phe Ala Thr
 65                  70                  75                  80

Ala Ile Pro Gly Cys Leu
                85


<210> 39
<211> 158
<212> PRT
<213> Homo sapiens

<400> 39
Met Ala Ala Ala Ser Ala Gly Ala Thr Arg Leu Leu Leu Leu Leu Leu
  1               5                  10                  15

Met Ala Val Ala Ala Pro Ser Arg Ala Arg Gly Ser Gly Cys Arg Ala
             20                  25                  30

Gly Thr Gly Ala Arg Gly Ala Gly Ala Glu Gly Arg Glu Gly Glu Ala
         35                  40                  45

Cys Gly Thr Val Gly Leu Leu Leu Glu His Ser Phe Glu Ile Asp Asp
     50                  55                  60

Ser Ala Asn Phe Arg Lys Arg Gly Ser Leu Leu Trp Asn Gln Gln Asp
 65                  70                  75                  80

Gly Thr Leu Ser Leu Ser Gln Arg Gln Leu Ser Glu Glu Glu Arg Gly
                85                  90                  95

Arg Leu Arg Asp Val Ala Ala Ser Tyr Leu Asp Cys Gly Ala Thr Arg
            100                 105                 110

Ala Cys Gly Pro Leu Leu Cys Ala Thr Leu Pro Val Ser Leu Phe Lys
        115                 120                 125

Asn Ile Asp Asp Thr Leu Lys Cys Val Asn Val Leu Lys Ser Tyr Ser
    130                 135                 140

Phe Gln Gln Pro Lys Ala Thr Val Val Leu Ala Arg Arg Ser
145                 150                 155
```

<210> 40
<211> 58
<212> PRT
<213> Homo sapiens

<400> 40
Met Thr Lys Ala Leu Ile Pro Thr Pro Phe Phe Leu Ala Ala Met Trp
  1   5   10   15

Pro Leu Trp Gln His Ser Trp Ala Gln Thr Leu Arg Ser Gln Arg Gln
            20   25   30

Glu Ala Asp Ala Trp Ala Lys Ala Gly Ala Gly Asn Ser Arg Gly Ser
        35   40   45

Leu Ala Trp Arg Leu Leu Met Ser Ser Gly
    50   55

<210> 41
<211> 432
<212> PRT
<213> Homo sapiens

<400> 41
Met Asp Ala Arg Trp Trp Ala Val Val Val Leu Ala Ala Phe Pro Ser
  1   5   10   15

Leu Gly Ala Gly Gly Glu Thr Pro Glu Ala Pro Pro Glu Ser Trp Thr
            20   25   30

Gln Leu Trp Phe Phe Arg Phe Val Val Asn Ala Ala Gly Tyr Ala Ser
        35   40   45

Phe Met Val Pro Gly Tyr Leu Leu Val Gln Tyr Phe Arg Arg Lys Asn
    50   55   60

Tyr Leu Glu Thr Gly Arg Gly Leu Cys Phe Pro Leu Val Lys Ala Cys
65   70   75   80

Val Phe Gly Asn Glu Pro Lys Ala Ser Asp Glu Val Pro Leu Ala Pro
                85   90   95

Arg Thr Glu Ala Ala Glu Thr Thr Pro Met Trp Gln Ala Leu Lys Leu
            100   105   110

Leu Phe Cys Ala Thr Gly Leu Gln Val Ser Tyr Leu Thr Trp Gly Val
        115   120   125

Leu Gln Glu Arg Val Met Thr Arg Ser Tyr Gly Ala Thr Ala Thr Ser
    130   135   140

Pro Gly Glu Arg Phe Thr Asp Ser Gln Phe Leu Val Leu Met Asn Arg
145   150   155   160

Val Leu Ala Leu Ile Val Ala Gly Leu Ser Cys Val Leu Cys Lys Gln
                165   170   175

Pro Arg His Gly Ala Pro Met Tyr Arg Tyr Ser Phe Ala Ser Leu Ser
            180   185   190

Asn Val Leu Ser Ser Trp Cys Gln Tyr Glu Ala Leu Lys Phe Val Ser
        195   200   205

Phe Pro Thr Gln Val Leu Ala Lys Ala Ser Lys Val Ile Pro Val Met
    210   215   220

```
Leu Met Gly Lys Leu Val Ser Arg Arg Ser Tyr Glu His Trp Glu Tyr
225                 230                 235                 240

Leu Thr Ala Thr Leu Ile Ser Ile Gly Val Ser Met Phe Leu Leu Ser
                245                 250                 255

Ser Gly Pro Glu Pro Arg Ser Ser Pro Ala Thr Thr Leu Ser Gly Leu
            260                 265                 270

Ile Leu Leu Ala Gly Tyr Ile Ala Phe Asp Ser Phe Thr Ser Asn Trp
        275                 280                 285

Gln Asp Ala Leu Phe Ala Tyr Lys Met Ser Ser Val Gln Met Met Phe
    290                 295                 300

Gly Val Asn Phe Phe Ser Cys Leu Phe Thr Val Gly Ser Leu Leu Glu
305                 310                 315                 320

Gln Gly Ala Leu Leu Glu Gly Thr Arg Phe Met Gly Arg His Ser Glu
                325                 330                 335

Phe Ala Ala His Ala Leu Leu Leu Ser Ile Cys Ser Ala Cys Gly Gln
            340                 345                 350

Leu Phe Ile Phe Tyr Thr Ile Gly Gln Phe Gly Ala Ala Val Phe Thr
        355                 360                 365

Ile Ile Met Thr Leu Arg Gln Ala Phe Ala Ile Leu Leu Ser Cys Leu
    370                 375                 380

Leu Tyr Gly His Thr Val Thr Val Val Gly Gly Leu Gly Val Ala Val
385                 390                 395                 400

Val Phe Ala Ala Leu Leu Leu Arg Val Tyr Ala Arg Gly Arg Leu Lys
                405                 410                 415

Gln Arg Gly Lys Lys Ala Val Pro Val Glu Ser Pro Val Gln Lys Val
            420                 425                 430
```

<210> 42
<211> 131
<212> PRT
<213> Homo sapiens

<400> 42

```
Met Ser Leu Ala Gln Arg Val Leu Leu Thr Trp Leu Phe Thr Leu Leu
  1               5                  10                  15

Phe Leu Ile Met Leu Val Leu Lys Leu Asp Glu Lys Ala Pro Trp Asn
             20                  25                  30

Trp Phe Leu Ile Phe Ile Pro Val Trp Ile Phe Asp Thr Ile Leu Leu
         35                  40                  45

Val Leu Leu Ile Val Lys Met Ala Gly Arg Cys Lys Ser Gly Phe Asp
     50                  55                  60

Pro Arg His Gly Ser His Asn Ile Lys Lys Lys Ala Trp Tyr Leu Ile
 65                  70                  75                  80

Ala Met Leu Leu Lys Leu Ala Phe Cys Leu Ala Leu Cys Ala Lys Leu
                 85                  90                  95
```

```
Glu Gln Phe Thr Thr Met Asn Leu Ser Tyr Val Phe Ile Pro Leu Trp
            100                 105                 110

Ala Leu Leu Ala Gly Ala Leu Thr Glu Leu Gly Tyr Asn Val Phe Phe
        115                 120                 125

Val Arg Asp
    130


<210> 43
<211> 215
<212> PRT
<213> Homo sapiens

<400> 43
Met Arg Leu Pro Ala Trp Cys Arg His Thr Thr Leu Ala Ile Ser Cys
  1               5                  10                  15

Trp His Cys Leu Val Leu Ala Arg Ala Ser Ala Asp Ser Ala Ser Leu
             20                  25                  30

Pro Thr Ile Ser His Leu Gly Val Lys Pro Leu Ser Val Gly Trp Gly
         35                  40                  45

Ala Pro Ser Thr Leu Pro Val Ser Pro Cys Gly Gly Lys Pro Ala Ala
     50                  55                  60

Pro Thr Ser Ala Ser Pro Ala Ala Ala Pro Leu Arg Phe Trp Arg Pro
 65                  70                  75                  80

Gly Ala Ser Gly Gly Gly Ala Gly Gly Thr Arg Arg Leu Ala Leu Cys
                85                  90                  95

Arg Leu Val Thr Ala Arg Thr Thr Leu Ala Thr Gly Thr Pro Gly Leu
            100                 105                 110

Ser Ala Arg Pro Arg Gln Arg Pro Cys Leu Leu Pro Val Leu Pro Arg
        115                 120                 125

Arg Pro Ala Glu Leu Ser Val Ser Leu Glu Pro Ser Pro Gly Ser Ser
    130                 135                 140

Gly Arg Gly Phe Leu Cys Leu Pro Phe Cys Lys Arg Asp Ala Asp Thr
145                 150                 155                 160

Ser Leu Gly Gln Thr Leu Thr Ser Ser Cys Ser Leu Ser Ser Ile Leu
                165                 170                 175

Val Gly Gly Thr Leu Arg Pro Arg Cys Ser Cys Pro Pro Phe Thr Gln
            180                 185                 190

Arg Ser Ala Phe His Leu Arg Thr Pro His Asn Gln Tyr His His Gly
        195                 200                 205

Ser Thr Ser Leu Ala Ser His
    210                 215


<210> 44
<211> 61
<212> PRT
<213> Homo sapiens

<400> 44
Met Lys Ser Ala Leu His Arg Asp Ile Cys Ile Leu Met Leu Thr Ala
  1               5                  10                  15
```

Ala Leu Phe Thr Ile Ala Lys Thr Glu Lys Gln His Lys Cys Pro Ser
20 25 30

Ile Asp Glu Gln Ile Asn Asn Leu Gln Tyr Ile Cys Thr Met Glu Tyr
35 40 45

His Ser Ala Leu Gln Lys Glu Met Leu Leu Tyr Leu Gln
50 55 60

<210> 45
<211> 125
<212> PRT
<213> Homo sapiens

<400> 45
Met Ile Pro Phe Pro Ala Cys Leu Leu Leu Ala Leu Phe Pro Lys Val
1 5 10 15

Gln Val Gly Arg Thr Thr Ser Ala Tyr Phe Ser Thr Ile Pro Ser Met
20 25 30

Pro Ala Arg Ser Gln Ile Asn Leu Pro Val Glu Ser Gly Ser Ala Leu
35 40 45

Leu Glu Pro Arg Gly Lys Gly Arg Val Glu Arg Val Cys Pro Val Ala
50 55 60

Trp Ser Ser Met Val Ala Ser Cys Leu Pro Ser Pro Ser Ser Gly Gly
65 70 75 80

Pro Glu Gly Ser Leu Gly Thr Val Pro Gln Ile Leu Thr Gln Gly Pro
85 90 95

Ala Trp Gly Arg Asp Gly Cys Arg Gln Asn Ala Leu Tyr Arg Asp Phe
100 105 110

Leu Leu Leu Gly Arg Cys Val Ser Pro Thr Ile Cys Leu
115 120 125

<210> 46
<211> 71
<212> PRT
<213> Homo sapiens

<400> 46
Met Leu Val Ala Ala Ile Val Phe Ile Ser Phe Gly Val Val Ala Ala
1 5 10 15

Phe Cys Cys Ala Ile Val Asp Gly Val Phe Ala Ala Gln His Ile Glu
20 25 30

Pro Lys Ala Pro His His Gly Lys Met Pro Val Tyr Ser Ser Gly Val
35 40 45

Gly Tyr Leu Tyr Asp Val Tyr Gln Thr Glu Val Ser Arg Ser Thr Glu
50 55 60

Ile His Val Gly Leu Leu Asn
65 70

<210> 47
<211> 69
<212> PRT
<213> Homo sapiens

<400> 47
Met Lys Ala Val Val Leu Leu Lys Ala Phe Ser Phe Ser Leu Cys Ser
1 5 10 15

Ala Ile Ser Pro Val Thr Pro Gly Phe Arg Gln Thr Ile Asn Val Leu
20 25 30

Asp Thr Val Ala Phe Ser Ala Phe Phe Ile Tyr Leu Phe Thr Val Thr
35 40 45

Ala Ser Ile Asn Phe Tyr Ala Tyr Phe Ser Ser Phe Leu Ala Gly Ala
50 55 60

Pro Phe Ile Lys Ile
65

<210> 48
<211> 85
<212> PRT
<213> Homo sapiens

<400> 48
Met Ala Ala Gly Gly Cys Leu Leu Leu Leu Ala Phe Phe Pro Leu Ser
1 5 10 15

Arg Gly Ser His Phe His Leu Gln Lys Arg Ala Leu Ala Glu Ala Ser
20 25 30

Phe Glu Ala Thr Leu Cys Glu Leu Phe Val Ile Glu Thr Ala Ser Lys
35 40 45

Gly Thr Leu Leu Ile Ile Thr Ile Arg His Leu Val Thr Tyr Ile Ile
50 55 60

Val Ile Phe Lys Cys His Met Leu Lys Asn Glu Met Asn Ser Ser Ile
65 70 75 80

Lys Pro His Phe Gln
85

<210> 49
<211> 150
<212> PRT
<213> Homo sapiens

<400> 49
Met Val Met Ile Leu Phe Val Ala Phe Ile Thr Cys Trp Glu Glu Val
1 5 10 15

Thr Thr Leu Val Gln Ala Ile Arg Ile Thr Ser Tyr Met Asn Glu Thr
20 25 30

Ile Leu Tyr Phe Pro Phe Ser Ser His Ser Ser Tyr Thr Val Arg Ser
35 40 45

Lys Lys Ile Phe Leu Ser Lys Leu Ile Val Cys Phe Leu Ser Thr Trp
50 55 60

Leu Pro Phe Val Leu Leu Gln Val Ile Ile Val Leu Leu Lys Val Gln
65 70 75 80

Ile Pro Ala Tyr Ile Glu Met Asn Ile Pro Trp Leu Tyr Phe Val Asn
85 90 95

Ser Phe Leu Ile Ala Thr Val Tyr Trp Phe Asn Cys His Lys Leu Asn
100 105 110

```
Leu Lys Asp Ile Gly Leu Pro Leu Asp Pro Phe Val Asn Trp Lys Cys
        115                 120                 125

Cys Phe Ile Pro Leu Thr Ile Pro Asn Leu Glu Gln Ile Glu Lys Pro
    130                 135                 140

Ile Ser Ile Met Ile Cys
145                 150


<210> 50
<211> 298
<212> PRT
<213> Homo sapiens

<400> 50
Met Lys Thr Leu Gln Ser Thr Leu Leu Leu Leu Leu Leu Val Pro Leu
  1               5                  10                  15

Ile Lys Pro Ala Pro Pro Thr Gln Gln Asp Ser Arg Ile Ile Tyr Asp
             20                  25                  30

Tyr Gly Thr Asp Asn Phe Glu Glu Ser Ile Phe Ser Gln Asp Tyr Glu
         35                  40                  45

Asp Lys Tyr Leu Asp Gly Lys Asn Ile Lys Glu Lys Glu Thr Val Ile
     50                  55                  60

Ile Pro Asn Glu Lys Ser Leu Gln Leu Gln Lys Asp Glu Ala Ile Thr
 65                  70                  75                  80

Pro Leu Pro Pro Lys Lys Glu Asn Asp Glu Met Pro Thr Cys Leu Leu
                 85                  90                  95

Cys Val Cys Leu Ser Gly Ser Val Tyr Cys Glu Glu Val Asp Ile Asp
            100                 105                 110

Ala Val Pro Pro Leu Pro Lys Glu Ser Ala Tyr Leu Tyr Ala Arg Phe
        115                 120                 125

Asn Lys Ile Lys Lys Leu Thr Ala Lys Asp Phe Ala Asp Ile Pro Asn
    130                 135                 140

Leu Arg Arg Leu Asp Phe Thr Gly Asn Leu Ile Glu Asp Ile Glu Asp
145                 150                 155                 160

Gly Thr Phe Ser Lys Leu Ser Leu Leu Glu Glu Leu Ser Leu Ala Glu
                165                 170                 175

Asn Gln Leu Leu Lys Leu Pro Val Leu Pro Pro Lys Leu Thr Leu Phe
            180                 185                 190

Asn Ala Lys Tyr Asn Lys Ile Lys Ser Arg Gly Ile Lys Ala Asn Ala
        195                 200                 205

Phe Lys Lys Leu Asn Asn Leu Thr Phe Leu Tyr Leu Asp His Asn Ala
    210                 215                 220

Leu Glu Ser Val Pro Leu Asn Leu Pro Glu Ser Leu Arg Val Ile His
225                 230                 235                 240

Leu Gln Phe Asn Asn Ile Ala Ser Ile Thr Asp Asp Thr Phe Cys Lys
                245                 250                 255

Ala Asn Asp Thr Ser Tyr Ile Arg Asp Arg Ile Glu Glu Ile Arg Leu
            260                 265                 270
```

Glu Gly Asn Pro Ile Val Leu Gly Lys His Pro Asn Ser Phe Ile Cys
275 280 285

Leu Lys Arg Leu Pro Ile Gly Ser Tyr Phe
290 295

<210> 51
<211> 57
<212> PRT
<213> Homo sapiens

<400> 51
Met Leu Asp Leu Ser Pro Ser Leu Thr Leu Lys Phe Cys Phe Leu His
1 5 10 15

Leu Val Phe Leu Pro Phe Lys Val Tyr Cys Gln Leu Leu Gln Glu Leu
20 25 30

Leu Ser Lys Pro Val Ser Lys Leu Pro Leu Thr Pro Gln Cys Gln Ser
35 40 45

Trp Ala Arg Pro Leu Gly Asp Leu Glu
50 55

<210> 52
<211> 145
<212> PRT
<213> Homo sapiens

<400> 52
Met Leu Arg Thr Leu Val Leu Lys Gln Thr Leu Asp Leu Leu Leu Pro
1 5 10 15

Leu Leu Glu Ala Leu Leu Val Leu Gly Val Pro Gln His Leu Glu Leu
20 25 30

Gln Pro Leu Pro Val Gln Val Ser Leu Leu Leu Leu Gln Leu Leu Asp
35 40 45

Leu Gly Ser Leu Lys Ser His Arg Leu His His Phe His Ser Lys Ala
50 55 60

Leu Gln Leu Pro Val Leu Asp His Leu Asp Phe Gln Asp Phe Gln Leu
65 70 75 80

Pro Trp Gln Gln Val Leu Ser Glu Leu Pro Val Ala Pro Ala Phe Gly
85 90 95

Gly Gly Ser Ser Val Ala Gly Phe Gly Ser Pro Gly Leu Thr Phe Ser
100 105 110

His Trp Leu Phe Leu Ser His Pro Val Asp Thr Phe Gly Asn Ser Gln
115 120 125

Ala Tyr Pro Thr Ser Leu Ser Ala Leu Gln Ala Ser Ile Asn Cys Asn
130 135 140

Arg
145

<210> 53
<211> 139
<212> PRT
<213> Homo sapiens

<400> 53
Met Lys Thr Leu Leu Leu Leu Val Gly Leu Leu Leu Thr Trp Glu Asn
1 5 10 15

Gly Arg Val Leu Gly Asp Gln Met Val Ser Asp Thr Glu Leu Gln Glu
20 25 30

Met Ser Thr Glu Gly Ser Lys Tyr Ile Asn Arg Glu Ile Lys Asn Ala
35 40 45

Leu Lys Gly Val Lys Gln Ile Lys Thr Leu Ile Glu Gln Thr Asn Glu
50 55 60

Glu Arg Lys Ser Leu Leu Thr Asn Leu Glu Glu Ala Lys Lys Lys Lys
65 70 75 80

Glu Asp Ala Leu Asn Asp Thr Lys Asp Ser Glu Met Lys Leu Lys Ala
85 90 95

Ser Gln Gly Val Cys Asn Asp Thr Met Met Ala Leu Trp Glu Glu Cys
100 105 110

Lys Pro Cys Leu Lys Gln Thr Trp Gly Lys Gly Leu Arg Pro Ser Leu
115 120 125

Gln Lys Gln His Arg Ala Gly Trp Pro Pro Gly
130 135

<210> 54
<211> 432
<212> PRT
<213> Homo sapiens

<400> 54
Met Asp Ala Arg Trp Trp Ala Val Val Val Leu Ala Ala Phe Pro Ser
1 5 10 15

Leu Gly Ala Gly Gly Glu Thr Pro Glu Ala Pro Pro Glu Ser Trp Thr
20 25 30

Gln Leu Trp Phe Phe Arg Phe Val Val Asn Ala Ala Gly Tyr Ala Ser
35 40 45

Phe Met Val Pro Gly Tyr Leu Leu Val Gln Tyr Phe Arg Arg Lys Asn
50 55 60

Tyr Leu Glu Thr Gly Arg Gly Leu Cys Phe Pro Leu Val Lys Ala Cys
65 70 75 80

Val Phe Gly Asn Glu Pro Lys Ala Ser Asp Glu Val Pro Leu Ala Pro
85 90 95

Arg Thr Glu Ala Ala Glu Thr Thr Pro Met Trp Gln Ala Leu Lys Leu
100 105 110

Leu Phe Cys Ala Thr Gly Leu Gln Val Ser Tyr Leu Thr Trp Gly Val
115 120 125

Leu Gln Glu Arg Val Met Thr Arg Ser Tyr Gly Ala Thr Ala Thr Ser
130 135 140

Pro Gly Glu Arg Phe Thr Asp Ser Gln Phe Leu Val Leu Met Asn Arg
145 150 155 160

Val Leu Ala Leu Ile Val Ala Gly Leu Ser Cys Val Leu Cys Lys Gln
165 170 175

```
Pro Arg His Gly Ala Pro Met Tyr Arg Tyr Ser Phe Ala Ser Leu Ser
            180                 185                 190

Asn Val Leu Ser Ser Trp Cys Gln Tyr Glu Ala Leu Lys Phe Val Ser
        195                 200                 205

Phe Pro Thr Gln Val Leu Ala Lys Ala Ser Lys Val Ile Pro Val Met
    210                 215                 220

Leu Met Gly Lys Leu Val Ser Arg Arg Ser Tyr Glu His Trp Glu Tyr
225                 230                 235                 240

Leu Thr Ala Thr Leu Ile Ser Ile Gly Val Ser Met Phe Leu Leu Ser
                245                 250                 255

Ser Gly Pro Glu Pro Arg Ser Ser Pro Ala Thr Thr Leu Ser Gly Leu
            260                 265                 270

Ile Leu Leu Ala Gly Tyr Ile Ala Phe Asp Ser Phe Thr Ser Asn Trp
        275                 280                 285

Gln Asp Ala Leu Phe Ala Tyr Lys Met Ser Ser Val Gln Met Met Phe
    290                 295                 300

Gly Val Asn Phe Phe Ser Cys Leu Phe Thr Val Gly Ser Leu Leu Glu
305                 310                 315                 320

Gln Gly Ala Leu Leu Glu Gly Thr Arg Phe Met Gly Arg His Ser Glu
                325                 330                 335

Phe Ala Ala His Ala Leu Leu Leu Ser Ile Cys Ser Ala Cys Gly Gln
            340                 345                 350

Leu Phe Ile Phe Tyr Thr Ile Gly Gln Phe Gly Ala Ala Val Phe Thr
        355                 360                 365

Ile Ile Met Thr Leu Arg Gln Ala Phe Ala Ile Leu Leu Ser Cys Leu
    370                 375                 380

Leu Tyr Gly His Thr Val Thr Val Val Gly Gly Leu Gly Val Ala Val
385                 390                 395                 400

Val Phe Ala Ala Leu Leu Leu Arg Val Tyr Ala Arg Gly Arg Leu Lys
                405                 410                 415

Gln Arg Gly Lys Lys Ala Val Pro Val Glu Ser Pro Val Gln Lys Val
            420                 425                 430
```

<210> 55
<211> 133
<212> PRT
<213> Homo sapiens

<400> 55

```
Met Arg Met Ser Leu Ala Gln Arg Val Leu Leu Thr Trp Leu Phe Thr
  1               5                  10                  15

Leu Leu Phe Leu Ile Met Leu Val Leu Lys Leu Asp Glu Lys Ala Pro
            20                  25                  30

Trp Asn Trp Phe Leu Ile Phe Ile Pro Val Trp Ile Phe Asp Thr Ile
        35                  40                  45

Leu Leu Val Leu Leu Ile Val Lys Met Ala Gly Arg Cys Lys Ser Gly
```

```
     50                  55                  60

Phe Asp Pro Arg His Gly Ser His Asn Ile Lys Lys Lys Ala Trp Tyr
 65                  70                  75                  80

Leu Ile Ala Met Leu Leu Lys Leu Ala Phe Cys Leu Ala Leu Cys Ala
                85                  90                  95

Lys Leu Glu Gln Phe Thr Thr Met Asn Leu Ser Tyr Val Phe Ile Pro
            100                 105                 110

Leu Trp Ala Leu Leu Ala Gly Ala Leu Thr Glu Leu Gly Tyr Asn Val
        115                 120                 125

Phe Phe Val Arg Asp
    130


<210> 56
<211> 77
<212> PRT
<213> Homo sapiens

<400> 56
Met Ala Ile Cys Gln Phe Phe Leu Gln Gly Arg Cys Arg Phe Gly Asp
  1               5                  10                  15

Arg Cys Trp Asn Glu His Pro Gly Ala Arg Gly Ala Gly Gly Gly Arg
            20                  25                  30

Gln Gln Pro Gln Gln Gln Pro Ser Gly Asn Asn Arg Arg Gly Trp Asn
        35                  40                  45

Thr Thr Ser Gln Arg Tyr Ser Asn Val Ile Gln Pro Ser Ser Phe Ser
     50                  55                  60

Lys Ser Thr Pro Trp Gly Gly Ser Arg Asp Gln Glu Thr
 65                  70                  75


<210> 57
<211> 247
<212> PRT
<213> Homo sapiens

<400> 57
Asn Arg Pro Gly Gly Arg Val Tyr Ala Arg Val Cys Arg Ser Ser Thr
  1               5                  10                  15

Gly Leu Val Gly His Gln Val Glu Glu Phe Leu Asn Gln Ser Ser Pro
            20                  25                  30

Phe Tyr Phe Trp Ile Asn Gly Asp Arg Ile Asp Ser Leu Leu Glu Asn
        35                  40                  45

Asp Arg Gln Gln Thr His Ala Leu Asp Val Met Gln Asp Ser Phe Asp
     50                  55                  60

Arg Ala Ser Ser Ile Met Asp Glu Leu Phe Gln Asp Arg Phe Phe Thr
 65                  70                  75                  80

Arg Glu Ala Gln Asp Pro Phe His Phe Ser Pro Phe Ser Ser Phe Gln
                85                  90                  95

Arg Arg Pro Phe Phe Phe Asn Ile Lys His Arg Phe Ala Arg Asn Ile
            100                 105                 110

Met Pro Phe Pro Gly Tyr Gln Pro Leu Asn Phe His Asp Met Phe Gln
```

```
        115                 120                 125

Pro Phe Phe Asp Met Ile His Gln Ala Gln Gln Ala Met Asp Val Asn
    130                 135                 140

Leu His Arg Leu Pro His Phe Pro Met Glu Phe Thr Glu Glu Asp Asn
145                 150                 155                 160

Gln Asp Gly Ala Val Cys Lys Glu Ile Arg His Asn Ser Thr Gly Cys
                165                 170                 175

Leu Lys Met Lys Asp Gln Cys Glu Lys Cys Arg Glu Ile Leu Ser Val
            180                 185                 190

Asp Cys Ser Ser Asn Asn Pro Ala Gln Val Gln Leu Arg Gln Glu Leu
        195                 200                 205

Asn Asn Ser Leu Gln Ile Ala Glu Lys Phe Thr Lys Leu Val Arg Arg
    210                 215                 220

Ala Ala Ala Val Leu Pro Gly Glu Asp Val Gln His Val Leu Pro Ala
225                 230                 235                 240

Glu Ala Ala Gly Arg Ala Val
                245


<210> 58
<211> 85
<212> PRT
<213> Homo sapiens

<400> 58
Met Ala Val Ala Lys Asp Met Trp Gln Glu Cys Asn Pro Asp Lys Lys
  1               5                  10                  15

Val Trp Tyr Pro Glu Leu Lys Pro Val Val Val Gly Arg Lys Arg Gln
            20                  25                  30

Gly Cys Ile His Met Val Asn Cys Ser Glu Val Arg Lys Glu Glu Leu
        35                  40                  45

Gly Ile Thr Glu Phe Leu Ala Leu Ser Gly Gln Met Thr Val Pro Leu
    50                  55                  60

Thr Lys Ile Gly Arg Thr Arg Ala Val Gly Lys Met Ser Ser Ser Leu
65                  70                  75                  80

Tyr Met Leu Leu Phe
                85


<210> 59
<211> 468
<212> PRT
<213> Homo sapiens

<400> 59
His Glu Gly Ser Leu Ala Ala Pro Gly Gly Gly Gly Gly Ser Ala Gly
  1               5                  10                  15

Gly Ala Arg Pro Gly Asp Ser His Ser Pro Val Pro Pro Pro Pro His
            20                  25                  30

Ala Ala Trp Thr Met Asp Ala Arg Trp Trp Ala Val Val Val Leu Ala
        35                  40                  45

Ala Phe Pro Ser Leu Gly Ala Gly Gly Glu Thr Pro Glu Ala Pro Pro
```

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     50                  55                  60

Glu Ser Trp Thr Gln Leu Trp Phe Phe Arg Phe Val Val Asn Ala Ala
 65                  70                  75                  80

Gly Tyr Ala Ser Phe Met Val Pro Gly Tyr Leu Leu Val Gln Tyr Phe
                 85                  90                  95

Arg Arg Lys Asn Tyr Leu Glu Thr Gly Arg Gly Leu Cys Phe Pro Leu
            100                 105                 110

Val Lys Ala Cys Val Phe Gly Asn Glu Pro Lys Ala Ser Asp Glu Val
        115                 120                 125

Pro Leu Ala Pro Arg Thr Glu Ala Ala Glu Thr Thr Pro Met Trp Gln
    130                 135                 140

Ala Leu Lys Leu Leu Phe Cys Ala Thr Gly Leu Gln Val Ser Tyr Leu
145                 150                 155                 160

Thr Trp Gly Val Leu Gln Glu Arg Val Met Thr Arg Ser Tyr Gly Ala
                165                 170                 175

Thr Ala Thr Ser Pro Gly Glu Arg Phe Thr Asp Ser Gln Phe Leu Val
            180                 185                 190

Leu Met Asn Arg Val Leu Ala Leu Ile Val Ala Gly Leu Ser Cys Val
        195                 200                 205

Leu Cys Lys Gln Pro Arg His Gly Ala Pro Met Tyr Arg Tyr Ser Phe
    210                 215                 220

Ala Ser Leu Ser Asn Val Leu Ser Ser Trp Cys Gln Tyr Glu Ala Leu
225                 230                 235                 240

Lys Phe Val Ser Phe Pro Thr Gln Val Leu Ala Lys Ala Ser Lys Val
                245                 250                 255

Ile Pro Val Met Leu Met Gly Lys Leu Val Ser Arg Arg Ser Tyr Glu
            260                 265                 270

His Trp Glu Tyr Leu Thr Ala Thr Leu Ile Ser Ile Gly Val Ser Met
        275                 280                 285

Phe Leu Leu Ser Ser Gly Pro Glu Pro Arg Ser Ser Pro Ala Thr Thr
    290                 295                 300

Leu Ser Gly Leu Ile Leu Leu Ala Gly Tyr Ile Ala Phe Asp Ser Phe
305                 310                 315                 320

Thr Ser Asn Trp Gln Asp Ala Leu Phe Ala Tyr Lys Met Ser Ser Val
                325                 330                 335

Gln Met Met Phe Gly Val Asn Phe Phe Ser Cys Leu Phe Thr Val Gly
            340                 345                 350

Ser Leu Leu Glu Gln Gly Ala Leu Leu Glu Gly Thr Arg Phe Met Gly
        355                 360                 365

Arg His Ser Glu Phe Ala Ala His Ala Leu Leu Leu Ser Ile Cys Ser
    370                 375                 380

Ala Cys Gly Gln Leu Phe Ile Phe Tyr Thr Ile Gly Gln Phe Gly Ala
385                 390                 395                 400

Ala Val Phe Thr Ile Ile Met Thr Leu Arg Gln Ala Phe Ala Ile Leu
                405                 410                 415
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Leu Ser Cys Leu Leu Tyr Gly His Thr Val Thr Val Val Gly Gly Leu
            420                 425                 430

Gly Val Ala Val Val Phe Ala Ala Leu Leu Leu Arg Val Tyr Ala Arg
        435                 440                 445

Gly Arg Leu Lys Gln Arg Gly Lys Lys Ala Val Pro Val Glu Ser Pro
    450                 455                 460

Val Gln Lys Val
465
```

<210> 60
<211> 133
<212> PRT
<213> Homo sapiens

<400> 60

```
Met Arg Met Ser Leu Ala Gln Arg Val Leu Leu Thr Trp Leu Phe Thr
  1               5                  10                  15

Leu Leu Phe Leu Ile Met Leu Val Leu Lys Leu Asp Glu Lys Ala Pro
            20                  25                  30

Trp Asn Trp Phe Leu Ile Phe Ile Pro Val Trp Ile Phe Asp Thr Ile
        35                  40                  45

Leu Leu Val Leu Leu Ile Val Lys Met Ala Gly Arg Cys Lys Ser Gly
    50                  55                  60

Phe Asp Pro Arg His Gly Ser His Asn Ile Lys Lys Lys Ala Trp Tyr
65                  70                  75                  80

Leu Ile Ala Met Leu Leu Lys Leu Ala Phe Cys Leu Ala Leu Cys Ala
                85                  90                  95

Lys Leu Glu Gln Phe Thr Thr Met Asn Leu Ser Tyr Val Phe Ile Pro
            100                 105                 110

Leu Trp Ala Leu Leu Ala Gly Ala Leu Thr Glu Leu Gly Tyr Asn Val
        115                 120                 125

Phe Phe Val Arg Asp
    130
```

<210> 61
<211> 75
<212> PRT
<213> Homo sapiens

<400> 61

```
Met Phe Leu Pro Thr Phe Tyr Pro Glu Lys Arg Phe Ser Pro Lys Asp
  1               5                  10                  15

Ser Ala Gln Ser Val Pro Pro Trp Glu His Leu Pro Gly Gln Pro Leu
            20                  25                  30

Arg Ala His Trp Ala Ser Leu His His Thr Asn Thr Pro Val Pro His
        35                  40                  45

Trp Leu Ser Asp Tyr Met Ala Val Cys Leu Val Lys Lys Lys Asn Gln
    50                  55                  60

Lys Lys Lys Lys Gln Lys Lys Lys Lys Lys Lys
65                  70                  75
```

<210> 62
<211> 93
<212> PRT
<213> Homo sapiens

<400> 62
Val Gly Thr Ala Ile Met Glu Asn Ser Met Ala Val Pro Leu Lys Thr
1 5 10 15

Glu Leu Pro Tyr Asp Pro Ala Ile Pro Leu Leu Ser Ile Pro Lys Glu
20 25 30

Met Lys Ser Ala Leu His Arg Asp Ile Cys Ile Leu Met Leu Thr Ala
35 40 45

Ala Leu Phe Thr Ile Ala Lys Thr Glu Lys Gln His Lys Cys Pro Ser
50 55 60

Ile Asp Glu Gln Ile Asn Asn Leu Gln Tyr Ile Cys Thr Met Glu Tyr
65 70 75 80

His Ser Ala Leu Gln Lys Glu Met Leu Leu Tyr Leu Gln
85 90

<210> 63
<211> 150
<212> PRT
<213> Homo sapiens

<400> 63
Ala Arg Gly Pro Leu Gly Leu Leu Asp Pro Ala Glu Gly Leu Ser Arg
1 5 10 15

Arg Lys Lys Thr Ser Leu Trp Phe Val Gly Ser Leu Leu Leu Val Ser
20 25 30

Val Leu Ile Val Thr Val Gly Leu Ala Ala Thr Thr Arg Thr Glu Asn
35 40 45

Val Thr Val Gly Gly Tyr Tyr Pro Gly Ile Ile Leu Gly Phe Gly Ser
50 55 60

Phe Leu Gly Ile Ile Gly Ile Asn Leu Val Glu Asn Arg Arg Gln Met
65 70 75 80

Leu Val Ala Ala Ile Val Phe Ile Ser Phe Gly Val Val Ala Ala Phe
85 90 95

Cys Cys Ala Ile Val Asp Gly Val Phe Ala Ala Gln His Ile Glu Pro
100 105 110

Lys Ala Pro His His Gly Lys Met Pro Val Tyr Ser Ser Gly Val Gly
115 120 125

Tyr Leu Tyr Asp Val Tyr Gln Thr Glu Val Ser Arg Ser Thr Glu Ile
130 135 140

His Val Gly Leu Leu Asn
145 150

<210> 64
<211> 192
<212> PRT
<213> Homo sapiens

<400> 64
Thr Arg Pro Val Leu Ala Tyr Val Leu Gly Asp Pro Ala Ile Tyr Gln
1 5 10 15

Ser Leu Lys Ala Gln Asn Ala Tyr Ser Arg His Cys Pro Phe Tyr Val
20 25 30

Ser Ile Gln Ser Tyr Trp Leu Ser Phe Phe Met Val Met Ile Leu Phe
35 40 45

Val Ala Phe Ile Thr Cys Trp Glu Glu Val Thr Thr Leu Val Gln Ala
50 55 60

Ile Arg Ile Thr Ser Tyr Met Asn Glu Thr Ile Leu Tyr Phe Pro Phe
65 70 75 80

Ser Ser His Ser Ser Tyr Thr Val Arg Ser Lys Lys Ile Phe Leu Ser
85 90 95

Lys Leu Ile Val Cys Phe Leu Ser Thr Trp Leu Pro Phe Val Leu Leu
100 105 110

Gln Val Ile Ile Val Leu Leu Lys Val Gln Ile Pro Ala Tyr Ile Glu
115 120 125

Met Asn Ile Pro Trp Leu Tyr Phe Val Asn Ser Phe Leu Ile Ala Thr
130 135 140

Val Tyr Trp Phe Asn Cys His Lys Leu Asn Leu Lys Asp Ile Gly Leu
145 150 155 160

Pro Leu Asp Pro Phe Val Asn Trp Lys Cys Cys Phe Ile Pro Leu Thr
165 170 175

Ile Pro Asn Leu Glu Gln Ile Glu Lys Pro Ile Ser Ile Met Ile Cys
180 185 190

<210> 65
<211> 269
<212> PRT
<213> Homo sapiens

<400> 65
Lys Lys Pro Asn Ile Ser Gly Phe Thr Asp Ile Ser Pro Glu Glu Leu
1 5 10 15

Arg Leu Glu Tyr His Asn Phe Leu Thr Ser Asn Asn Leu Gln Ser Tyr
20 25 30

Leu Asn Ser Val Gln Arg Leu Ile Asn Gln Trp Arg Asn Arg Val Asn
35 40 45

Glu Leu Lys Ser Leu Asn Ile Ser Thr Lys Val Ala Leu Leu Ser Asp
50 55 60

Val Lys Asp Gly Val Asn Pro Ala Ala Pro Ala Phe Gly Phe Gly Ser
65 70 75 80

Ser Gln Ala Ala Thr Phe Met Ser Pro Gly Phe Pro Val Asn Asn Ser
85 90 95

Ser Ser Asp Asn Ala Gln Asn Phe Ser Phe Lys Thr Asn Ser Gly Phe
100 105 110

```
Ala Ala Ala Ser Ser Gly Ser Pro Ala Gly Phe Gly Ser Ser Pro Ala
        115                 120                 125

Phe Gly Ala Ala Ala Ser Thr Ser Ser Gly Ile Ser Thr Ser Ala Pro
    130                 135                 140

Ala Phe Gly Phe Gly Lys Pro Glu Val Thr Ser Ala Ala Ser Phe Ser
145                 150                 155                 160

Phe Lys Ser Pro Ala Ala Ser Ser Phe Gly Ser Pro Gly Phe Ser Gly
                165                 170                 175

Leu Pro Ala Ser Leu Ala Thr Gly Pro Val Arg Ala Pro Val Ala Pro
            180                 185                 190

Ala Phe Gly Gly Gly Ser Ser Val Ala Gly Phe Gly Ser Pro Gly Ser
        195                 200                 205

His Ser His Thr Ala Phe Ser Lys Pro Ser Ser Asp Thr Phe Gly Asn
    210                 215                 220

Ser Ser Ile Ser Thr Ser Leu Ser Ala Ser Ser Ser Ile Ile Ala Thr
225                 230                 235                 240

Asp Asn Val Leu Phe Thr Pro Arg Asn Lys Leu Thr Val Glu Glu Leu
                245                 250                 255

Glu Gln Phe Gln Ser Lys Lys Phe Thr Leu Gly Lys Ile
            260                 265


<210> 66
<211> 300
<212> PRT
<213> Homo sapiens

<400> 66
Met Ser Ser Ser His Pro Val Ser Pro Asn Pro His His Gly Gly Ala
  1               5                  10                  15

Ala Glu Ile Lys Lys Pro Asn Ile Ser Gly Phe Thr Asp Ile Ser Pro
            20                  25                  30

Glu Glu Leu Arg Leu Glu Tyr His Asn Phe Leu Thr Ser Asn Asn Leu
        35                  40                  45

Gln Ser Tyr Leu Asn Ser Val Gln Arg Leu Ile Asn Gln Trp Arg Asn
     50                  55                  60

Arg Val Asn Glu Leu Lys Ser Leu Asn Ile Ser Thr Lys Val Ala Leu
 65                  70                  75                  80

Leu Ser Asp Val Lys Asp Gly Val Asn Pro Ala Ala Pro Ala Phe Gly
                85                  90                  95

Phe Gly Ser Ser Gln Ala Ala Thr Phe Met Ser Pro Gly Phe Pro Val
            100                 105                 110

Asn Asn Ser Ser Ser Asp Asn Ala Gln Asn Phe Ser Phe Lys Thr Asn
        115                 120                 125

Ser Gly Phe Ala Ala Ala Ser Ser Gly Ser Pro Ala Gly Phe Gly Ser
    130                 135                 140

Ser Pro Ala Phe Gly Ala Ala Ala Ser Thr Ser Ser Gly Ile Ser Thr
145                 150                 155                 160

Ser Ala Pro Ala Phe Gly Phe Gly Lys Pro Glu Val Thr Ser Ala Ala
```

```
                165                 170                 175

Ser Phe Ser Phe Lys Ser Pro Ala Ala Ser Ser Phe Gly Ser Pro Gly
            180                 185                 190

Phe Ser Gly Leu Pro Ala Ser Leu Ala Thr Gly Pro Val Arg Ala Pro
        195                 200                 205

Val Ala Pro Ala Phe Gly Gly Gly Ser Ser Val Ala Gly Phe Gly Ser
    210                 215                 220

Pro Gly Ser His Ser His Thr Ala Phe Ser Lys Pro Ser Ser Asp Thr
225                 230                 235                 240

Phe Gly Asn Ser Ser Ile Ser Thr Ser Leu Ser Ala Ser Ser Ser Ile
                245                 250                 255

Ile Ala Thr Asp Asn Val Leu Phe Thr Pro Arg Asn Lys Leu Thr Val
            260                 265                 270

Glu Glu Leu Glu Gln Phe Gln Ser Lys Lys Phe Thr Leu Gly Lys Ile
        275                 280                 285

Pro Leu Lys Pro Pro Pro Leu Glu Leu Leu Asn Val
    290                 295                 300


<210> 67
<211> 365
<212> PRT
<213> Homo sapiens

<400> 67
Arg Arg Pro Pro Ser Ala Thr Pro Ser Gln Trp Pro Phe Val Asn Ser
  1               5                  10                  15

Ser Phe Lys Ala Gly Ala Ala Leu Glu Ile Gly Ala Gly Thr Asn Ile
             20                  25                  30

Pro Val Leu Gly Val Gln Glu Glu Asp Gly Ser Asn Arg Ser Ser Ser
         35                  40                  45

Leu Gln Val Ile Ile Asp Val Asp Gly Ile Gln Leu Ala Arg Asp Ile
     50                  55                  60

Pro Met Ser Ser Ser His Pro Val Ser Pro Asn Pro His His Gly Gly
 65                  70                  75                  80

Ala Ala Glu Ile Lys Lys Pro Asn Ile Ser Gly Phe Thr Asp Ile Ser
                 85                  90                  95

Pro Glu Glu Leu Arg Leu Glu Tyr His Asn Phe Leu Thr Ser Asn Asn
            100                 105                 110

Leu Gln Ser Tyr Leu Asn Ser Val Gln Arg Leu Ile Asn Gln Trp Arg
        115                 120                 125

Asn Arg Val Asn Glu Leu Lys Ser Leu Asn Ile Ser Thr Lys Val Ala
    130                 135                 140

Leu Leu Ser Asp Val Lys Asp Gly Val Asn Pro Ala Ala Pro Ala Phe
145                 150                 155                 160

Gly Phe Gly Ser Ser Gln Ala Ala Thr Phe Met Ser Pro Gly Phe Pro
                165                 170                 175

Val Asn Asn Ser Ser Ser Asp Asn Ala Gln Asn Phe Ser Phe Lys Thr
            180                 185                 190
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```
Asn Ser Gly Phe Ala Ala Ala Ser Ser Gly Ser Pro Ala Gly Phe Gly
        195                 200                 205

Ser Ser Pro Ala Phe Gly Ala Ala Ala Ser Thr Ser Ser Gly Ile Ser
    210                 215                 220

Thr Ser Ala Pro Ala Phe Gly Phe Gly Lys Pro Glu Val Thr Ser Ala
225                 230                 235                 240

Ala Ser Phe Ser Phe Lys Ser Pro Ala Ala Ser Ser Phe Gly Ser Pro
                245                 250                 255

Gly Phe Ser Gly Leu Pro Ala Ser Leu Ala Thr Gly Pro Val Arg Ala
            260                 265                 270

Pro Val Ala Pro Ala Phe Gly Gly Gly Ser Ser Val Ala Gly Phe Gly
        275                 280                 285

Ser Pro Gly Ser His Ser His Thr Ala Phe Ser Lys Pro Ser Ser Asp
    290                 295                 300

Thr Phe Gly Asn Ser Ser Ile Ser Thr Ser Leu Ser Ala Ser Ser Ser
305                 310                 315                 320

Ile Ile Ala Thr Asp Asn Val Leu Phe Thr Pro Arg Asn Lys Leu Thr
                325                 330                 335

Val Glu Glu Leu Glu Gln Phe Gln Ser Lys Lys Phe Thr Leu Gly Lys
            340                 345                 350

Ile Pro Leu Lys Pro Pro Pro Leu Glu Leu Leu Asn Val
        355                 360                 365


<210> 68
<211> 6
<212> PRT
<213> Homo sapiens
<400> 68

Cys Lys Pro Cys Leu Lys
  1               5


<210> 69
<211> 11
<212> PRT
<213> Homo sapiens
<400> 69

Cys Leu Lys Met Lys Asp Gln Cys Glu Lys Cys
  1               5                  10


<210> 70
<211> 87
<212> PRT
<213> Homo sapiens

<400> 70
Lys Thr Pro Ser Val Ser Asp Ala Val Ala Met Ala Ile Cys Gln Phe
  1               5                  10                  15

Phe Leu Gln Gly Arg Cys Arg Phe Gly Asp Arg Cys Trp Asn Glu His
            20                  25                  30

Pro Gly Ala Arg Gly Ala Gly Gly Gly Arg Gln Gln Pro Gln Gln Gln
```

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         35                  40                  45

Pro Ser Gly Asn Asn Arg Arg Gly Trp Asn Thr Thr Ser Gln Arg Tyr
     50                  55                  60

Ser Asn Val Ile Gln Pro Ser Ser Phe Ser Lys Ser Thr Pro Trp Gly
 65                  70                  75                  80

Gly Ser Arg Asp Gln Glu Thr
                 85
```